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09/877,622	06/08/2001	Qianjun Liu	4143/CIP-1	2232

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EXAMINER

NGUYEN, JENNIFER T

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/877,622

Applicant(s)

LIU ET AL.

Examiner

Jennifer T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6, 13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office action is responsive to amendment filed on 09/02/2003.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (U.S. Patent No. 6,476,799).

Regarding claims 1 and 18, referring to Figs. 1-4, Lee teaches a touch sensing system for identifying at least one active touch stimulating device (100), an apparatus for powering the active touch stimulating device (100) comprising: a touch sensing area (10) in which said at least one active touch stimulating device (100) operates; a transducer (20) disposed operatively associated with said touch sensing area (10) for transmitting a power signal to said at least one active touch stimulating devices (100); each of said active touch stimulating devices (100) including means for receiving said power signal and converting said power signal to electrical operating power for said active touch stimulating device (100); said transducer (20) includes a first antenna extending about the perimeter of said touch sensing area (10) and further including means for connecting said power signal to said first antenna to generate an EM power field

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across said touch sensing area (see abstract, col. 3, lines 29-67, col. 4, lines 1-9, and col. 6, lines 9-45).

Regarding claim 2, Lee further teaches at least one touch stimulating device (100) includes a second antenna (110) adapted to receive power from said EM field within said touch sensing area (10) (col. 6, lines 9-45).

Regarding claim 3, Lee further teaches second antenna (110) is a resonant antenna tuned to the frequency of said EM field (col. 6, lines 9-45).

Regarding claim 5, Lee further teaches the resonant antenna (110) includes an inductor coil (L2) and a capacitor (C1) connected to be tuned to the frequency of said EM field (col. 6, lines 9-45).

4. Claims 13, 14, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ronkka et al. (U.S. Patent No. 6,002,387).

Regarding claims 13 and 19, referring to Fig. 6, Ronkka teaches an a touch sensing system for identifying at least one active touch stimulating device (51), an apparatus for powering the active touch stimulating device (51), comprising: a touch sensing area (41) in which said at least one active touch stimulating device operates (51); a transducer (46) operatively associated with said touch sensing area (41) for transmitting a power signal to said at least one active touch stimulating devices (51); a conductive layer (42) disposed within said touch sensing area (41), said transducer (46) including at least one power signal transmitter coupled to said conductive layer (42) to generate an EM field in said conductive layer (42); each of said active touch stimulating devices (51) including means (53) for receiving said power signal and converting said power signal to electrical operating power for said active touch

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stimulating device (51) (from col. 4, line 44 to col. 5, line 67, col. 6, lines 50-67, and col. 7, lines 31-39).

Regarding claim 14, Ronkka further teaches transducer (46) includes at least one power signal transmitter coupled to peripheral portion of conductive layer (42) and controlled to establish an AC voltage gradient across said conductive layer (42) (from col. 4, line 44 to col. 5, line 67, col. 6, lines 50-67, and col. 7, lines 31-39).

Regarding claim 17, Ronkka further teaches a touch stimulating device includes touch signaling means incorporating spread spectrum signals (col. 5, lines 59-67).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. Patent No. 6,476,799) in view of Katsurahira et al. (U.S. Patent No. 5,682,019).

Regarding claim 4, Lee differs from claim 4 in that he does not specifically teach rectifying means connected to the output of said resonant antenna to generate operating power for said active touch stimulating device. However, referring to Figs. 1 and 4, Katsurahira teaches rectifying means (19) connected to the output of said resonant antenna (11, 12) to generate operating power for said active touch stimulating device (col. 2, lines 33-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the rectifying means connected to the output of said resonant antenna to generate

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operating power for said active touch stimulating device as taught by Katsurahira in the system of Lee in order to provide the DC power for operating the touch input device.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. Patent No. 6,476,799) in view of Katsurahira et al. (U.S. Patent No. 5,682,019) in view of Ronkka et al. (U.S. Patent No. 6,002,387).

Regarding claim 6, the combination of Lee and Katsurahira differs from claim 6 in that it does not specifically teach the touch stimulating device includes touch signaling means incorporating spread spectrum signals. However, Ronkka teaches a touch stimulating device includes touch signaling means incorporating spread spectrum signals (col. 5, lines 59-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the touch stimulating device includes touch signaling means incorporating spread spectrum signals as taught by Ronkka in the system of the combination of Lee and Katsurahira in order to provide a high speed and high capacity transmission device.

8. Claims 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronkka et al. (U.S. Patent No. 6,002,387) in view of Meadows et al. (U.S. Patent No. 4,922,061).

Regarding claims 15 and 20, Ronkka differs from claims 15 and 20 in that he does not specifically teach a pair of contact points adapted to electrically engage said conductive layer, said pair of contact points being spaced apart to acquire a voltage differential from said voltage gradient in said conductive layer. However, referring to Fig. 2, Meadows teaches a pair of contact points adapted to electrically engage said conductive layer (20), said pair of contact points being spaced apart to acquire a voltage differential from said voltage gradient in said conductive layer (20) (from col. 4, line 47 to col. 5, line 45). Therefore, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to incorporate the pair of contact points adapted to electrically engage said conductive layer, said pair of contact points being spaced apart to acquire a voltage differential from said voltage gradient in said conductive layer as taught by Meadows in the system of Ronkka in order to generate power supply to the touch input device more effectively.

9. Claims 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronkka et al. (U.S. Patent No. 6,002,387) in view of Meadows et al. (U.S. Patent No. 4,922,061) and further in view of Katsurahira et al. (U.S. Patent No. 5,682,019).

Regarding claims 16 and 21, the combination of Ronkka and Meadows differs from claims 16 and 21 in that it does not specifically teach rectifying means connected to the output of said resonant antenna to generate operating power for said active touch stimulating device. However, referring to Figs. 1 and 4, Katsurahira teaches rectifying means (19) connected to the output of said resonant antenna (11, 12) to generate operating power for said active touch stimulating device (col. 2, lines 33-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the rectifying means connected to the output of said resonant antenna to generate operating power for said active touch stimulating device as taught by Katsurahira in the system of the combination of Ronkka and Meadows in order to provide the DC power for operating the touch input device.

10. Applicant's arguments with respect to claims 1-6, 13, 15-21 have been considered but are moot in view of the new ground(s) of rejection.

11. The prior art made of record and not relied upon is considered to pertinent applicant's disclosure.

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Fukuzaki et al. (U.S. Patent No. 5,706,000) teaches position detecting device and position pointing device therefor.

Fukuzaki (U.S. Patent No. 5,635,684) teaches position detecting device and its method.

Katsurahira et al. (U.S. Patent No. 6,005,555) teaches position detecting apparatus and method for detecting position pointing device.

Matsushima (U.S. Patent No. 5,670,754) teaches digitizer and position determination method.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**.

The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reach at **703-305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC. 20231

**Or faxed to: 703-872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding



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should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

Jennifer T. Nguyen

11/20/2003



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SUPERVISORY PANEL EXAMINER  
TECHNOLOGY CENTER 2600